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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/997,549	11/27/2001	Giovanni Gozzini	01-B-097	7277
30426	7590	12/09/2004	EXAMINER	
STMICROELECTRONICS, INC.			DEB, ANJAN K	
MAIL STATION 2346			ART UNIT	
1310 ELECTRONICS DRIVE			PAPER NUMBER	
CARROLLTON, TX 75006			2858	

DATE MAILED: 12/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/997,549	GOZZINI, GIOVANNI	
	Examiner	Art Unit	
	Anjan K Deb	2858	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 8-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Claims 1-7 of Group I in the reply filed on 10/19/2004 is acknowledged.

Claims 8-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected inventions of Group II, and III, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 10/19/2004.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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3. Claims 1,2, 6 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-21 of U.S. Patent No. 6,636,053 B1. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

Re claim 1, U.S. Patent No. 6,636,053 B1 recites sensing element (pixel for fingerprint sensing device) (see claim 1) comprising dielectric body (see claim 8), surface plate (upper plate) (see claim 1), first and second plate (see claims 1,8), and a third plate disposed between first and second plate and connected to upper plate (see claims 6,18), first plate defines a first capacitor with third plate, and second plate defines a second capacitor with third plate (upper plate connected to third plate)(see claim 1, 6, 15).

Re claim 2, U.S. Patent No. 6,636,053 B1 recites first, second, and third plates are embedded in dielectric body (see claims 8,18), forming first and second capacitors, and communicating signal (output signal) that is a function of variable capacitance (see claims 1,6,7,15,20).

Re claim 6, US Patent No. 6,636,053 B1 recite upper plate, first, and second plate consist essentially of aluminum embedded in dielectric body (see claim 11).

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4. Claim 3 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-21 of U.S. Patent No. 6,636,053 B1 in view of Tartagni (US 6,437,583 B1).

Re claim 3, U.S. Patent No. 6,636,053 B1 did not claim first, second, and third plates have fingers interdigitated relation with adjacent fingers for forming a capacitor.

Tartagni (US 6,437,583 B1) discloses capacitive distance sensor (FIG. 9) comprising first capacitor plate 23 has several fingers 91 that are interdigitated with fingers 92 of the second capacitor plate 24.

At the time of the invention it would have been obvious for one of ordinary skill in the art to modify US Patent No. 6,636,053 B1 by adding capacitor plate having several fingers that are interdigitated with several fingers of a second capacitor plate as disclosed by Tartagni et al. to obtain a basic capacitance within a very small space for making a compact fingerprint sensor.

5. Claims 4, 5, 7 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-21 of U.S. Patent No. 6,636,053 B1 in view of Lane et al. (US PG-PUB 2003/0102874 A1).

Re claims 4,5 US Patent No. 6,636,053 B1 did not claim first thickness of dielectric material being greater than ten micron and second thickness of dielectric material being less than one micron.

Lane et al. (US PG-PUB 2003/0102874 A1) disclose capacitive fingerprint sensor comprising first dielectric body (coating) having 10 to 20 (abstract) microns in thickness and a

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second dielectric thickness (dielectric layer 44) less than one micron (0.2 to 0.3 microns) thick [para 0015].

At the time of the invention it would have been obvious for one of ordinary skill in the art to modify US Patent No. 6,636,053 B1 by adding first dielectric body having 10 to 20 microns in thickness, and second dielectric having less than one micron thickness as disclosed by Lane et al. for providing a high degree of sensitivity and image resolution.

Re claim 7, US Patent No. 6,636,053 B1 did not claim surface plate consists of titanium oxide.

Lane et al. disclose surface plate 38 comprising titanium oxide.

At the time of the invention it would have been obvious for one of ordinary skill in the art to modify US Patent No. 6,636,053 B1 by adding surface plate 38 comprising titanium oxide disclosed by Lane et al. because titanium offers stable contact resistance suitable for making good electrical contact.

Conclusion

6 . The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Edwards (US 4,429,413) discloses fingerprint sensor comprising upper surface plate 32 disposed on dielectric body 30 and plurality of plates 38 embedded in dielectric body 40(Fig. 3).

Setlak (US 5,963,679) discloses fingerprint sensor comprising plurality of plates (71, 78, 66) embedded in dielectric body (Fig. 1, 8, 10).

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Kazama (US 2004/0239355 A1) discloses advantages of titanium material which include high hardness, resistance to heat and acid, and a stable contact resistance.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Anjan K. Deb whose telephone number is 571-272-2228. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, N. Le, can be reached at (571) 272-2233.



Anjan K. Deb

Patent Examiner

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12/8/04

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